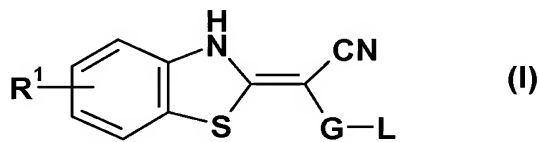


Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 (Currently amended). A method for treating a metabolic disorder mediated by insulin resistance or hyperglycemia, comprising administering to a human or other mammal in need thereof an effective amount of a compound ~~benzothiazole derivative~~ according to formula I



~~as well as its tautomers, its geometrical isomers, its optically active forms as enantiomers, diastereomers and its racemate forms, as well as~~ a tautomer, geometrical isomer, optically active form as enantiomer, diastereomer, racemate, or a pharmaceutically acceptable salts salt thereof, wherein

G is a pyrimidinyl group;

L is an C₁-C₆-alkoxy, an amino group, or a 3-8 membered heterocycloalkyl, containing at least one heteroatom selected from the group consisting of N, O, and S; and

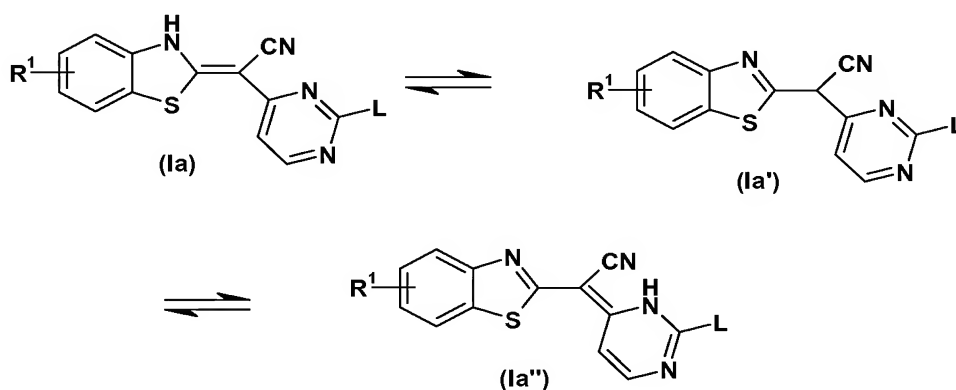
R¹ is selected from the group consisting of hydrogen, sulfonyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl or C₁-C₆-alkoxy, aryl, halogen, cyano and hydroxy₇

~~for the preparation of a medicament for the treatment of metabolic disorders mediated by insulin resistance or hyperglycemia, comprising diabetes type II, inadequate glucose tolerance, insulin resistance, obesity, and polycystic ovary syndrome.~~

2 (Currently amended). The ~~benzothiazole derivate~~ method according to claim 1, wherein the ~~disease~~ metabolic disorder is diabetes type II.

3 (Currently amended). The ~~benzothiazole derivate~~ method according to claim 1, wherein, in the compound, R¹ is H or C₁-C₃ alkyl.

4 (Currently amended). The ~~benzothiazole derivate~~ method according to claim 1, wherein the compound has any of formulae (Ia), (Ia') or (Ia'') :



wherein R¹ is selected from the group consisting of hydrogen, sulfonyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkoxy, aryl, halogen, cyano, and hydroxy; and

L is an amino group of the formula $-NR^3R^4$, wherein R^3 and R^4 are each independently from each other H, C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, C_2 - C_6 -alkynyl, C_1 - C_6 -alkoxy, aryl, heteroaryl, saturated or unsaturated 3-8-membered cycloalkyl, 3-8-membered heterocycloalkyl, (wherein said cycloalkyl, heterocycloalkyl, aryl or heteroaryl groups may be fused with 1-2 further cycloalkyl, heterocycloalkyl, aryl or heteroaryl group), C_1 - C_6 -alkyl aryl, C_1 - C_6 -alkyl heteroaryl, C_1 - C_6 -alkenyl aryl, C_1 - C_6 -alkenyl heteroaryl, C_1 - C_6 -alkynyl aryl, C_1 - C_6 -alkynyl heteroaryl, C_1 - C_6 -alkyl cycloalkyl, C_1 - C_6 -alkyl heterocycloalkyl, C_1 - C_6 -alkenyl cycloalkyl, C_1 - C_6 -alkenyl heterocycloalkyl, C_1 - C_6 -alkynyl cycloalkyl, C_1 - C_6 -alkynyl heterocycloalkyl; or

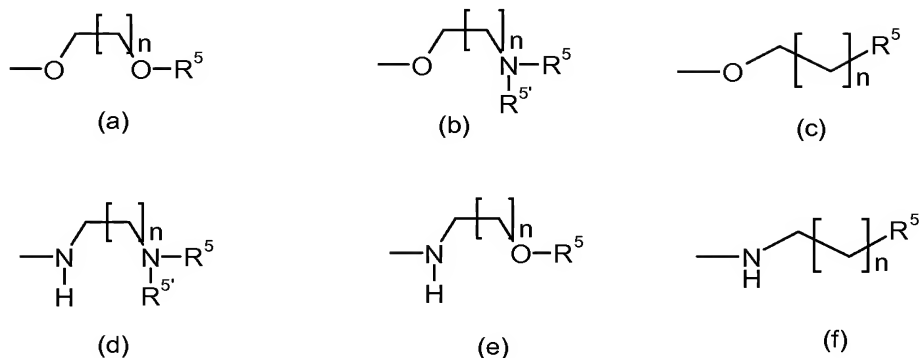
R^3 and R^4 may form a ring together with the nitrogen to which they are bound.

5(Currently amended). The ~~benzothiazole~~ ~~derivate~~ method according to claim 4, wherein, in the compound, R^3 is hydrogen or a methyl or ethyl or propyl group and R^4 is selected from the group consisting of a (C_1 - C_6)-alkyl, C_1 - C_6 -alkyl-aryl, C_1 - C_6 -alkyl-heteroaryl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl, and 4-8 membered saturated or unsaturated cycloalkyl.

6(Currently amended). The ~~benzothiazole~~ ~~derivate~~ method according to claim 4, wherein, in the compound, R^3 and

R⁴ form an optionally substituted piperazine or a piperidine or a morpholine or a pyrrolidine ring together with the nitrogen to which they are bound, whereby said optional substituent is selected from the group consisting of a C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkoxy, aryl, heteroaryl, saturated or unsaturated 3-8-membered cycloalkyl, 3-8-membered heterocycloalkyl, (wherein said cycloalkyl, heterocycloalkyl, aryl or heteroaryl groups may be fused with 1-2 further cycloalkyl, heterocycloalkyl, aryl or heteroaryl group), C₁-C₆-alkyl aryl, C₁-C₆-alkyl heteroaryl, C₁-C₆-alkenyl aryl, C₁-C₆-alkenyl heteroaryl, C₁-C₆-alkynyl aryl, C₁-C₆-alkynyl heteroaryl, C₁-C₆-alkyl cycloalkyl, C₁-C₆-alkyl heterocycloalkyl, C₁-C₆-alkenyl cycloalkyl, C₁-C₆-alkenyl heterocycloalkyl, C₁-C₆-alkynyl cycloalkyl, and C₁-C₆-alkynyl heterocycloalkyl.

7 (Currently amended). The ~~benzothiazole-derivate~~ method according to claim 5, wherein, in the compound, L is selected from the group consisting of:



wherein n is 1 to 10, and

R⁵ and R^{5'} are independently selected from each other from the group consisting of H, C₁-C₁₀ alkyl, aryl or hetero-aryl, C₁-C₆ alkyl-aryl, and C₁-C₆-alkyl-heteroaryl.

8 (Currently amended). The ~~benzothiazole-derivate~~ method according to claim 1, wherein the compound is selected from the group consisting of:

1,3-benzothiazol-2-yl (2,6-dimethoxy-4-pyrimidinyl) acetonitrile;

1,3-benzothiazol-2-yl (2-{[2-(1H-imidazol-5-yl)ethyl]amino}-4-pyrimidinyl) acetonitrile;

1,3-benzothiazol-2-yl [2-(1-piperazinyl)-4-pyrimidinyl] acetonitrile;

1,3-benzothiazol-2-yl [2-(4-benzyl-1-piperidinyl)-4-pyrimidinyl] acetonitrile;

1,3-benzothiazol-2-yl [2-(4-methyl-1-piperazinyl)-4-pyrimidinyl] acetonitrile;

1,3-benzothiazol-2-yl[2-(4-morpholinyl)-4-pyrimidinyl]acetonitrile;

1,3-benzothiazol-2-yl[2-(methylamino)-4-pyrimidinyl]acetonitrile;

1,3-benzothiazol-2-yl(2-{4-[2-(4-morpholinyl)ethyl]-1-piperazinyl}-4-pyrimidinyl)-acetonitrile;

1,3-benzothiazol-2-yl{2-[4-(benzyloxy)-1-piperidinyl]-4-pyrimidinyl}acetonitrile;

1,3-benzothiazol-2-yl[2-(4-hydroxy-1-piperidinyl)-4-pyrimidinyl]acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(dimethylamino)ethyl]amino}-4-pyrimidinyl)acetonitrile;

1,3-benzothiazol-2-yl[2-(dimethylamino)-4-pyrimidinyl]acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-methoxyethyl)amino]-4-pyrimidinyl}acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-hydroxyethyl)amino]-4-pyrimidinyl}acetonitrile;

1,3-benzothiazol-2-yl[2-(propylamino)-4-pyrimidinyl]acetonitrile;

1,3-benzothiazol-2-yl(2-{[3-(1H-imidazol-1-yl)propyl]amino}-4-pyrimidinyl)acetonitrile;

1,3-benzothiazol-2-yl[2-(1-pyrrolidinyl)-4-pyrimidinyl]acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-phenylethyl)amino]-4-pyrimidinyl}acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(2-pyridinyl)ethyl]amino}-4-pyrimidinyl)acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-pyridinylmethyl)amino]-4-pyrimidinyl}acetonitrile;

1,3-benzothiazol-2-yl{2-[4-(1H-1,2,3-benzotriazol-1-yl)-1-piperidinyl]-4-pyrimidinyl}acetonitrile;

1,3-benzothiazol-2-yl{2-[4-(2-pyrazinyl)-1-piperazinyl]-4-pyrimidinyl}acetonitrile;

1,3-benzothiazol-2-yl{2-[4-(2-pyrimidinyl)-1-piperazinyl]-4-pyrimidinyl}acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(3-pyridinyl)ethyl]amino}-4-pyrimidinyl)acetonitrile;

1,3-benzothiazol-2-yl(5-bromo-2-{[2-(dimethylamino)ethyl]amino}-4-pyrimidinyl)-acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-morpholin-4-ylethyl)amino]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl[2-(4-{3-[(trifluoromethyl)sulfonyl]anilino}piperidin-1-yl)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl(2-{[3-(2-oxopyrrolidin-1-yl)propyl]amino}pyrimidin-4-yl)-acetonitrile;

1,3-benzothiazol-2-yl(2-{methyl[3-(methylamino)propyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[3-(4-methylpiperazin-1-yl)propyl]amino}pyrimidin-4-yl)-acetonitrile;

1,3-benzothiazol-2-yl{2-[(3-morpholin-4-yl)propyl]amino}pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(1-methyl-1H-imidazol-4-yl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(1H-indol-3-yl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(4-hydroxyphenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

tert-butyl ({4-[1,3-benzothiazol-2-yl(cyano)methyl]pyrimidin-2-yl}amino)acetate

{2-[(3-aminopropyl)amino]pyrimidin-4-yl}(1,3-benzothiazol-2-yl)acetonitrile;

{2-[(2-aminoethyl)amino]pyrimidin-4-yl}(1,3-benzothiazol-2-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[3-(dimethylamino)propyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-piperidin-1-ylethyl)amino]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(1-methyl-1H-imidazol-5-yl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl[2-(benzylamino)pyrimidin-4-yl]acetonitrile;

isopropyl 3-({4-[1,3-benzothiazol-2-yl(cyano)methyl]pyrimidin-2-yl}amino)propanoate;

1,3-benzothiazol-2-yl{2-[(3-hydroxypropyl)amino]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl{2-[(pyridin-3-ylmethyl)amino]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl{2-[(pyridin-4-ylmethyl)amino]pyrimidin-4-yl}acetonitrile;

tert-butyl 4-[2-({4-[1,3-benzothiazol-2-yl(cyano)methyl]pyrimidin-2-yl}amino)-ethyl]phenylcarbamate;

(2-{[2-(4-aminophenyl)ethyl]amino}pyrimidin-4-yl)(1,3-benzothiazol-2-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(3,4-dimethoxyphenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(3-methoxyphenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(2-fluorophenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl[2-({2-[3-(trifluoromethyl)phenyl]ethyl}amino)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-hydroxy-2-phenylethyl)amino]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-{[3-(trifluoromethyl)pyridin-2-yl]amino}ethyl)amino]-pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(3-chlorophenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(3,4-dichlorophenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(4-methoxyphenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(4-methylphenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(3-fluorophenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(4-phenoxyphenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(2-phenoxyphenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(4-bromophenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(4-fluorophenyl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-[1,1'-biphenyl]-4-ylethyl)amino]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl{2-[(2-{4-[hydroxy(oxido)amino]phenyl}ethyl)amino]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl(2-{[2-(1H-1,2,4-triazol-1-yl)ethyl]amino}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl(2-{[3-(1H-pyrazol-1-yl)propyl]amino}pyrimidin-4-yl)acetonitrile;

4-[2-({4-[1,3-benzothiazol-2-yl(cyano)methyl]pyrimidin-2-yl}amino)ethyl]benzene-sulfonamide;

{2-[(2-pyridin-3-ylethyl)amino]pyrimidin-4-yl}[5-(trifluoromethyl)-1,3-benzothiazol-2-yl]acetonitrile;

1,3-benzothiazol-2-yl{2-[(1H-tetraazol-5-ylmethyl)amino]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl[2-(benzyloxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl{2-[(4-pyridin-3-ylbenzyl)oxy]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl[2-(pyridin-4-ylmethoxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl[2-(pyridin-2-ylmethoxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl[2-(3-pyridin-2-ylpropoxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl{2-[(4-methoxybenzyl)oxy]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl[2-(pyridin-3-ylmethoxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl{2-[2-(4-methoxyphenyl)ethoxy]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl[2-([1,1'-biphenyl]-3-ylmethoxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl{2-[(3,4,5-trimethoxybenzyl)oxy]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl{2-[(3,4-dichlorobenzyl)oxy]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl[2-({3-[(dimethylamino)methyl]benzyl}oxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl{2-[(1-oxidopyridin-3-yl)methoxy]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl(2-{[4-(morpholin-4-ylmethyl)benzyl]oxy}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl{2-[(4-pyridin-2-ylbenzyl)oxy]pyrimidin-4-yl}acetonitrile;

1,3-benzothiazol-2-yl(2-{[4-(piperidin-1-ylmethyl)benzyl]oxy}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl[2-(4-methoxyphenoxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl[2-(4-butoxyphenoxy)pyrimidin-4-yl]acetonitrile;

{2-[4-(4-acetylpiperazin-1-yl)phenoxy]pyrimidin-4-yl}(1,3-benzothiazol-2-yl)acetonitrile;

[2-(4-methoxyphenoxy)pyrimidin-4-yl][5-(trifluoromethyl)-1,3-benzothiazol-2-yl]acetonitrile;

N-[2-({4-[1,3-benzothiazol-2-yl(cyano)methyl]pyrimidin-2-yl}amino)ethyl]-4-chlorobenzamide;

1,3-benzothiazol-2-yl(2-methoxy-4-pyrimidinyl)acetonitrile;

1,3-benzothiazol-2-yl[2-({4-[(4-methylpiperazin-1-yl)methyl]benzyl}oxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl[2-({4-[(4-benzyl-piperazin-1-yl)methyl]-benzyl}oxy)pyrimidin-4-yl]acetonitrile;

1,3-benzothiazol-2-yl(2-{[4-(piperazin-1-ylmethyl)benzyl]oxy}pyrimidin-4-yl)acetonitrile;

1,3-benzothiazol-2-yl[2-({4-[(4-formylpiperazin-1-yl)methyl]benzyl}oxy)pyrimidin-4-yl]acetonitrile;

[2-({4-[(4-acetylpiperazin-1-yl)methyl]benzyl}oxy)pyrimidin-4-yl](1,3-benzothiazol-2-yl)acetonitrile;

(3H-Benzothiazol-2-ylidene)-{2-[4-(4-[1,2,4]oxadiazol-3-ylmethyl-piperazin-1-ylmethyl)-benzyloxy]-pyrimidin-4-yl}-acetonitrile;

4-(4-{4-[(3H-Benzothiazol-2-ylidene)-cyano-methyl]-
pyrimidin-2-yloxymethyl}-benzyl)-piperazine-1-carboxylic acid
methyl ester;

2-[4-(4-{4-[(3H-Benzothiazol-2-ylidene)-cyano-methyl]-
pyrimidin-2-yloxymethyl}-benzyl)-piperazin-1-yl]-acetamide;

(2-{4-[4-(2-Amino-acetyl)-piperazin-1-ylmethyl]-
benzyloxy}-pyrimidin-4-yl)-(3H-benzothiazol-2-ylidene)-
acetonitrile;

[4-(4-{4-[(3H-Benzothiazol-2-ylidene)-cyano-methyl]-
pyrimidin-2-yloxymethyl}-benzyl)-piperazin-1-yl]-acetic acid
methyl ester;

(3H-Benzothiazol-2-ylidene)-(2-{4-[4-(2-methoxy-ethyl)-
piperazin-1-ylmethyl]-benzyloxy}-pyrimidin-4-yl)-acetonitrile;

4-(4-{4-[(3H-Benzothiazol-2-ylidene)-cyano-methyl]-
pyrimidin-2-yloxymethyl}-benzyl)-piperazine-1-carboxylic acid
dimethylamide;

(3H-Benzothiazol-2-ylidene)-{2-[4-(4-ethyl-piperazin-1-
ylmethyl)-benzyloxy]-pyrimidin-4-yl}-acetonitrile; and

(3H-Benzothiazol-2-ylidene)-(2-{4-[4-(2-hydroxy-ethyl)-
piperazin-1-ylmethyl]-benzyloxy}-pyrimidin-4-yl)-acetonitrile.

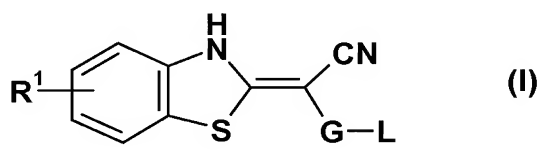
9(Currently amended). The ~~benzothiazole-derivate~~
method according to claim 1, wherein the compound further
~~comprising~~ comprises at least one supplementary drug selected
from the group consisting of insulin, aldose reductase

inhibitors, alpha-glucosidase inhibitors, sulfonyl urea agents, biguanides, thiazolidines, PPARs agonists, and GSK-3 inhibitors.

10(Currently amended). The ~~benzothiazole-derivate~~ method according to claim 9, wherein said supplementary drug is selected from the group consisting of a rapid acting insulin, an intermediate acting insulin, a long acting insulin, a combination of intermediate and rapid acting insulins, Minalrestat, Tolrestat, Sorbinil, Methosorbinil, Zopolrestat, Epalrestat, Zenarestat, Imirestat, Ponalrestat, ONO-2235, GP-1447, CT-112, BAL-ARI 8, AD-5467, ZD5522, M-16209, NZ-314, M-79175, SPR-210, ADN 138, or SNK-860, Miglitol, Acarbose, Glipizide, Glyburide, Chlorpropamide, Tolbutamide, Tolazamide, and Glimepiride.

11(Currently amended). The ~~benzothiazole-derivate~~ method according to claim 1, wherein n is 1 to 6.

12(Currently amended). A pharmaceutical composition comprising ~~the benzothiazole derivative according to claim 1 and~~ an adjuvant, carrier, diluent, or excipient and a compound according to formula I:



as well as a tautomer, geometrical isomer, optically active form as enantiomer, diastereomer, racemate, or a pharmaceutically acceptable salt thereof, wherein

G is a pyrimidinyl group;

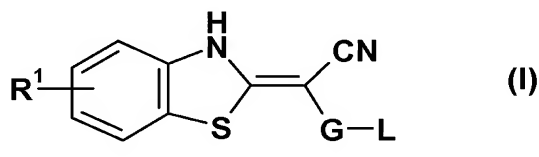
L is an C₁-C₆-alkoxy, an amino group, or a 3-8 membered heterocycloalkyl, containing at least one heteroatom selected from the group consisting of N, O, and S; and

R¹ is selected from the group consisting of hydrogen, sulfonyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl or C₁-C₆-alkoxy, aryl, halogen, cyano and hydroxy.

13(Currently amended). A method for the treatment of a metabolic ~~disorders~~ disorder mediated by insulin resistance or hyperglycemia, comprising ~~diabetes type II, inadequate glucose tolerance, insulin resistance, obesity, and polycystic ovary syndrome, which comprises~~ administering an effective amount of the pharmaceutical composition according to claim 12 to a human or other mammal in need thereof.

14(Currently amended). A method for the preparation of a pharmaceutical composition for the treatment of metabolic disorders mediated by insulin resistance or hyperglycemia, comprising ~~diabetes type II, inadequate glucose tolerance, insulin resistance, obesity, and polycystic ovary syndrome, which comprises~~ combining the benzothiazole derivative according to

~~claim 1~~ a compound with an adjuvant, carrier, diluent, or excipient, wherein the compound is one according to formula I:



as well as a tautomer, geometrical isomer, optically active form as enantiomer, diastereomer, racemate, or a pharmaceutically acceptable salt thereof, wherein

G is a pyrimidinyl group;

L is an C₁-C₆-alkoxy, an amino group, or a 3-8 membered heterocycloalkyl, containing at least one heteroatom selected from the group consisting of N, O, and S; and

R¹ is selected from the group consisting of hydrogen, sulfonyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl or C₁-C₆-alkoxy, aryl, halogen, cyano and hydroxy.

15(New). The method according to claim 1, wherein the metabolic disorder is inadequate glucose tolerance.

16(New). The method according to claim 1, wherein the metabolic disorder is insulin resistance.

17(New). The method according to claim 1, wherein the metabolic disorder is obesity.

18(New). The method according to claim 1, wherein the metabolic disorder is polycystic ovary syndrome.

19(New). The method according to claim 13, wherein the metabolic disorder is selected from the group consisting of diabetes type II, inadequate glucose tolerance, insulin resistance, obesity, and polycystic ovary syndrome.

20(New). The method according to claim 14, wherein the metabolic disorder is selected from the group consisting of diabetes type II, inadequate glucose tolerance, insulin resistance, obesity, and polycystic ovary syndrome.